MARSHALL BRUCER, M.D
5335 VIA CELESTE, TUCSON, ARIZONA 85718
(602) 299-6288

E. PODOLAK

June 6, 1979

DOCKET NUMBER
PETITION RULE PRM-35-1 (28)

Mr. Samuel J. Chilk
Secretary of the Commission
Attention: Docketing and Service Branch
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Chilk:

I support the petition of George V. Taplin, M.D. (Docket No. PRM-35-1) that opposes the regulation requiring physicians to use approved radioactive drugs only in strict accord with the manufacturer's package insert.

I have had experience in the writing of package inserts for radioactive drugs. Such inserts are not written to advance any patient's welfare. Package inserts are written by professional Package Insert Writing Committees solely for the purpose of fulfilling the existing requirements of federal Package Insert Review Committees.

Package Insert Review Committees presumably base their requirements on scientific literature involving previous use of the radioactive drug. Such literature describes an illegal use of the drug in question unless it is preceded by an Investigative New Drug License. Theoretically any physician, but actually only an organization with considerable financial support, can obtain an Investigative New Drug License. In current practice the pharmaceutical houses who finance new drug applications also finance the studies that feed the literature read by the Package Insert Review Committees who pass judgment on the pharmaceutical house's Package Insert Writing Committee. (I disregard a few academic pharmacology departments because their contribution is negligible until it becomes available through these same commercial channels.)

I do not imply that this merry-go-round of bias is an indictment of the pharmaceutical industry; at least they recognize the imperfection of their product. It is an indictment of the NRC whose only legitimate reason for existence is public safety.

Because radiation is omnipresent, maintenance of public safety involves two functions: minimization of risk and maximization of benefit. Any regulatory agency that devotes itself exclusively to either half of these paired aspects is not doing

6-21-79 wch

its job. A requirement that physicians use radioactive drugs only by out-of-date package insert instructions is solely risk minimization. It shows that NRC does not understand the ontogeny of a typical package insert. Some simplified examples will illustrate:

^{99m}Tc-DTPA was scientifically introduced in the late 1960s as a brain scanning agent with a fast kidney excretion pattern. A few years later it was introduced commercially as a kidney scan agent. The manufacturer already had a profitable brain agent but did not have a glomerular excretory agent. This decision was made by an accountant. But after ^{99m}Tc-DTPA was available and "approved", its advantages as a brain scan agent became apparent to physicians. Within a few years the manufacturer's accountant changed his mind because the brain/kidney scan ratio was about 100--and so he took the "renal" out of the product's name. "Availability" to the mass market is the single most important factor in any scanning agent's popularity.

^{99m}Tc-Sn-pyrophosphate became a valuable cardiac blood pool agent because of its primary fault as a bone scan agent: its tin content labeled red cells. The disadvantage became an advantage not because the bone scan agent is the best way to administer tin but because it was "available".

^{99m}Tc-pertechnetate became a thyroid trapping agent, not because of the scientific validity of a package insert but because we spent about four years fighting neck contamination in brain scans. Radioactive Gallium spent 4/5ths of its entire existence as a bone scan agent. Not until it became "available" to a mass market did its true value become apparent. For about 13 years ^{99m}Tc-sulfur colloid has had a Kuppfer's cell localization, although for 25 years studies with ^{198}Au-colloid proved this impossible. In vivo radiopharmaceutical localization is primarily determined by radiopharmaceutical "availability" in the mass market. If you don't believe this, you have never had experience as a scientific editor.

There is no nuclide--and I include all 2,452 of them--that has a metabolism confined to a single organ. If the NRC were truly concerned with promoting public safety they would require that every nuclide scan be accompanied by a simultaneous scan of a clinically uninvolved organ, thus assuring the first step in interpretation quality control. Confirmation of a clinical diagnosis is an important reason for scanning. But when a diagnosis is not obvious, far more important is a fishing expedition.

Dr. Taplin's specific request for authorization of inhalation scans will affect only a few patients. But his disagreement with the elevation of the Package Insert to the Supreme Court affects most patients. When Congress authorized the creation of the NRC, I don't think they envisioned the Volstead Act of 1979.

Sincerely,

Marshall Brucer, M.D.

MB:lel